

U.S.S.N. 10/686,078

2

BWA 0255 PUS

In the Claims:

1. (Cancelled)

2. (Currently Amended) A viscous fluid type heat generating apparatus comprising:housing means;channel means in said housing means for guiding a tempering fluid through them;conveying rotor means arranged at least partially in said channel means for driving said tempering fluid through said channel means, said conveying rotor means being hollow to form a chamber at least partially surrounded by a rotor wall of said conveyor rotor means for containing said viscous fluid;drive means for rotating said conveying rotor meansshaft means driven by said drive means and being connected to said conveying rotor means; andshearing means in said chamber of said hollow conveying rotor means for generating heat by shearing said viscous fluid, said heat being transferred via said conveying rotor means to said tempering fluid in said channel means. Apparatus as claimed in claim 1, wherein said chamber is fully surrounded by said rotor wall means at least in operation.

3-6. (Cancelled)

7. (Currently Amended) A viscous fluid type heat generating apparatus comprising:

housing means;

channel means in said housing means for guiding a tempering fluid through them;

conveying rotor means arranged at least partially in said channel means for driving said tempering fluid through said channel means, said conveying

U.S.S.N. 10/686,078

3

BWA 0255 PUS

rotor means being hollow to form a chamber at least partially surrounded by a rotor wall of said conveyor rotor means for containing said viscous fluid;

drive means for rotating said conveying rotor means;

shaft means driven by said drive ~~drive~~ means and being connected to said conveying rotor means; and

shearing means in said chamber of said hollow conveying rotor means for generating heat by shearing said viscous fluid, said heat being transferred via said conveying rotor means to said tempering fluid in said channel means, said shearing means including

at least one shearing plate element for cooperating with said rotor wall, and

means providing relative movement of said shearing plate in relation to said rotor wall.

8. (Original) Apparatus as claimed in claim 7, wherein said shaft means comprise a hollow inner space, said relative movement providing means comprising holding means arranged within said inner space for holding said at least one shearing plate element.

9. (Original) Apparatus as claimed in claim 8, wherein said holding means are formed as a shaft which extends along said inner space.

10. (Currently Amended) A viscous fluid type heat generating apparatus comprising:

housing means;

channel means in said housing means for guiding a tempering fluid through them;

conveying rotor means arranged at least partially in said channel means for driving said tempering fluid through said channel means, said conveying

U.S.S.N. 10/686,078

4

BWA 0255 PUS

rotor means being hollow to form a chamber at least partially surrounded by a rotor wall of said conveying rotor means for containing said viscous fluid;

drive means for rotating said conveying rotor means

shaft means driven by said drive drive means and being connected to said conveying rotor means; and

shearing means in said chamber of said hollow conveying rotor means for generating heat by shearing said viscous fluid, said heat being transferred via said conveying rotor means to said tempering fluid in said channel means, said shearing means including at least one shearing plate element for cooperating with said rotor wall, means providing relative movement of said shearing plate in relation to said rotor wall; and

control means for controlling the magnitude of the relative movement between said at least one shearing plate element and said rotor wall.

11. (Original) Apparatus as claimed in claim 10, wherein said control means comprise electric control means.

12. (Original) Apparatus as claimed in claim 11, further comprising sensor means for sensing a temperature influence parameter, said sensor means providing an output signal.

13. (Original) Apparatus as claimed in claim 12, wherein said sensor means comprise at least two sensors so as to provide an output signal of each of it, and control means comprising a weighting control circuit for weighting said output signals.

14. (Original) Apparatus as claimed in claim 13, wherein said weighting control circuit comprises a neuronal network.

15. (Original) Apparatus as claimed in claim 10, wherein said control means comprises

electric control means providing at least one control signal, and

U.S.S.N. 10/686,078

5

BWA 0255 PUS

electromagnetic means receiving said control signal for controlling the magnitude of the relative movement.

16. (Original) Apparatus as claimed in claim 10, wherein said control means comprise braking means for braking said shearing plate element.

17. (Original) Apparatus as claimed in claim 16, further comprising controllable coupling means interposed between said drive means and said shaft means, said control means controlling said coupling means.

18. (Cancelled)

19. (Cancelled)

20. (New) Apparatus as claimed in claim 2, wherein said shearing means comprise at least two opposing shearing parts, said shearing parts including interengaging projections and recesses.

21. (New) Apparatus as claimed in claim 2, wherein said chamber is formed as a gap at least in part.

22. (New) Apparatus as claimed in claim 2 wherein said conveying rotor means are formed of metal having a higher thermal conductivity k than 100 kcal/m h degree.

23. (New) Apparatus as claimed in claim 22 wherein said conveying means are formed of aluminum.